

DISCUSSION OF THE AMENDMENT

Claim 1 has been amended by replacing "being obtainable" with --obtained--.

New Claims 13-18 have been added, as supported in the specification at page 5, lines 34-41.

The Abstract has been replaced with a new Abstract in a single paragraph format.

No new matter has been added by the above amendment. Claims 1-18 are now pending in the application.

REMARKS

As claimed in amended Claim 1, the present invention is an aqueous polymer dispersion having a minimum film-forming temperature of below +65°C comprising at least one film-forming polymer in the form of dispersed polymer particles comprising a polymer phase P1 and a different polymer phase P2, the polymer dispersion obtained by free-radical aqueous emulsion polymerization comprising the following steps: i) polymerization of a first monomer charge M1 to give a polymer P1 having a theoretical glass transition temperature $T_g^{(1)}$ (according to Fox) and ii) polymerization of a second monomer charge M2 to give a polymer P2 having a theoretical glass transition temperature $T_g^{(2)}$ (according to Fox) which is different from $T_g^{(1)}$ in the aqueous dispersion of the polymer P1, at least one **chain transfer reagent** being used **either** in the polymerization of the monomer charge M1 **or** in the polymerization of the monomer charge M2 (emphasis added).

The rejection of Claims 1-12 under 35 U.S.C. §102(b) as anticipated by U.S. 5,643,993 (Guerin), is respectfully traversed. Guerin discloses aqueous polymer dispersions containing a structured particle consisting of a core of a first polymer and a shell of a second polymer (paragraph bridging columns 4 and 5). While, as the Examiner points out, Guerin

discloses that polymerization to form their respective polymers may be carried out in the presence of at least one chain transfer reagent (column 6, lines 21-24), Guerin neither discloses nor suggests the use of at least one chain transfer reagent for making one, and only one, of the respective polymers. Indeed, as disclosed in all of the examples therein, a chain transfer reagent (N-dodecanethiol) is used for making each of the first and second polymers (column 10, lines 1-45).

The advantage of employing a chain transfer reagent in the preparation of one, as opposed to both, polymers is demonstrated in the specification herein. Comparative Example 1 demonstrates Dispersion c-1, which was made without the use of a chain transfer reagent for either of the polymers. On the other hand, Examples 1-8 are according to the presently-claimed invention. See Table 1 at page 21 of the specification. The comparative example and examples were formulated into paints and tested for various properties, as described in the specification beginning at page 22 through page 25, line 10. The results are shown in Table 2 at page 25 of the specification. Applicants describe the results in the specification at page 25, last four lines, as follows:

From the examples it is evident that the polymer dispersions 1 to 8 of the invention result in paints having improved scrub resistance and enhanced gloss, while the blocking resistance and viscosity of the paints remain largely unaffected.

The above-discussed results could not have been predicted from Guerin.

For all the above reasons, it is respectfully requested that the rejection over Guerin be withdrawn.

The provisional rejection of Claims 1-2, 4-7, and 11-12 under the judicially created doctrine of obviousness-type double patenting over Claims 1-3 and 9 of copending Application No. 09/743,219 (the copending application), is respectfully traversed. While the Examiner purports to demonstrate similarities between the claims in the present application

and in the copending application, the presently-claimed invention is not obvious over the claims of the copending application, because the claims of the copending application disclose and suggest nothing with regard to the use of at least one chain transfer reagent in the polymerization of only one of the monomer charges. Accordingly, it is respectfully requested that this rejection be withdrawn.

The rejection of Claims 1-12 under 35 U.S.C. §112, second paragraph, is respectfully traversed. Regarding the term "being obtainable", it is moot in view of the above-discussed amendment. Regarding the term "according to Fox", it is noted that according to Fox, the glass transition temperature is calculated based on the glass transition temperature of homopolymers made from the respective **monomers** of a single polymer, as is well known and as disclosed in the paragraph bridging pages 3 and 4 of the specification. It is not, as the Examiner finds, calculated based on the overall glass transition temperature of two different **polymers**. While Applicants appreciate the Examiner's suggestion of amendment, it is respectfully submitted that this suggestion would result in a change in meaning of the claims. Applicants respectfully submit that the present meaning is clear, and no further amendment is necessary.

For all the above reasons, it is respectfully requested that this rejection be withdrawn.

The rejection of Claims 1-5 and 9-12 under 35 U.S.C. §112, first paragraph, is respectfully traversed. The present claims require that the polymer dispersion be obtained by free-radical aqueous emulsion polymerization. To the extent free-radical aqueous emulsion polymerization can be used to polymerize monomers that are not ethylenically unsaturated, there is no issue that such monomers are not enabley disclosed.

A specification disclosure which contains a teaching of the manner and process of making and using an invention in terms which correspond in scope to those used in

describing and defining the subject matter sought to be patented must be taken as being in compliance with the enablement requirement of 35 U.S.C. §112, first paragraph, unless there is a reason to doubt the objective truth of the statement contained therein which must be relied on for enabling support. The first paragraph of 35 U.S.C. §112 requires nothing more than objective enablement. See In re Marzocchi, 439 F2d 220, 169 USPQ 367 (CCPA 1971), and M.P.E.P. 2164.04. The Examiner has set forth no reasons why one skilled in the art would doubt the truth of any statement in Applicants' disclosure.

Accordingly, it is respectfully requested that this rejection be withdrawn.

The objection to the Abstract of the Disclosure is now moot in view of the above-discussed amendment. Accordingly, it is respectfully requested that it be withdrawn.

All of the presently pending claims in this application are now believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to pass this application to issue.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,
MAIER & NEUSTADT P.C.



Norman F. Oblon
Attorney of Record
Registration No. 24,618

Harris A. Pitlick
Registration No. 38,779



22850

(703) 413-3000
Fax #: (703)413-2220
NFO:HAP\la
I:\atty\HAP\198956us-am.wpd

Marked-Up Copy
Serial No: 09/702,724
Amendment Filed on:
HEREWITH

IN THE CLAIMS

Please amend Claim 1 as follows:

--1. (Amended) An aqueous polymer dispersion having a minimum film-forming temperature of below +65°C comprising at least one film-forming polymer in the form of dispersed polymer particles comprising a polymer phase P1 and a different polymer phase P2, the polymer dispersion [being obtainable] obtained by free-radical aqueous emulsion polymerization comprising the following steps:

- i) polymerization of a first monomer charge M1 to give a polymer P1 having a theoretical glass transition temperature $T_g^{(1)}$ (according to Fox) and
- ii) polymerization of a second monomer charge M2 to give a polymer P2 having a theoretical glass transition temperature $T_g^{(2)}$ (according to Fox) which is different from $T_g^{(1)}$ in the aqueous dispersion of the polymer P1,

at least one chain transfer reagent being used either in the polymerization of the monomer charge M1 or in the polymerization of the monomer charge M2.--

Claims 13-18 (New).

IN THE ABSTRACT

(New).